EDELMAN, M.

Cortisone derivatives in the treatment of chronic cardiac insufficiency. Kardiol. pol. 5 no.4:287-304 '62.

1. Z II Kliniki Chorob Wewnetrznych AM w Lodzi. Kierownik: prof. dr J. Jakubowski.
(HEART FAILURE CONGESTIVE) (CORTISONE)

RUNOV, V.I.; EDEL'MAN, M.I.

Biochemical differences among the phytopathogens of cotton wilt.
Uzb. biol. zhur. 7 no.4:14-16 '63 (MIRA 17:4)

1. Institut botaniki AN UzSSR.

L 57596-65 EWG(j)/EWT(d)/EWT(l)/EWP(e)/EWT(m)/EWP(w)/EPF(c)/EWG(s)-2/EWP(i)/EWG(v)/EWA(d)/EWP(v)/EPR/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(h) Pe-5/Pf-4/Pr-4/Ps-4/Peb/Pw-4
SD/WW/EM/DJ/WH

ACCESSION NR: AP5017875 UR/0286/65/000/011/0118/0119
621.825

AUTHOR: Kashchenko, I. M.; Krysin, B. T.; Kolpakov, Ya. V.; Smirnov, G. G.; Mikhaylovnkiy, V. A.; Tsytsenko, M. V.; Lebedeva, L. P.; Vinokurov, V. I.; Levin, M. M.; Edel'man, M. I.

TITLE: Method for producing friction parts from powder components. Class 47, No. 171702

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 11, 1965, 118-119

TOPIC TAGS: aircraft brake, friction part, powder metallurgy

ABSTRACT: An Author Certificate has been issued for a method of producing friction parts (e.g., brake-unit parts) for aircraft from powder components. To reduce wear, the mixture contains 60—70% iron, 13—16% copper, 8—10% barium sulfate, 3—7% graphite, 3—5% asbestos, and 2—5% silicon oxide. The mixture is compact molded at a pressure of 5.8 t/cm^2 and sintered at a temperature of 1060C and a pressure of 25 kg/cm^2.

[LB]

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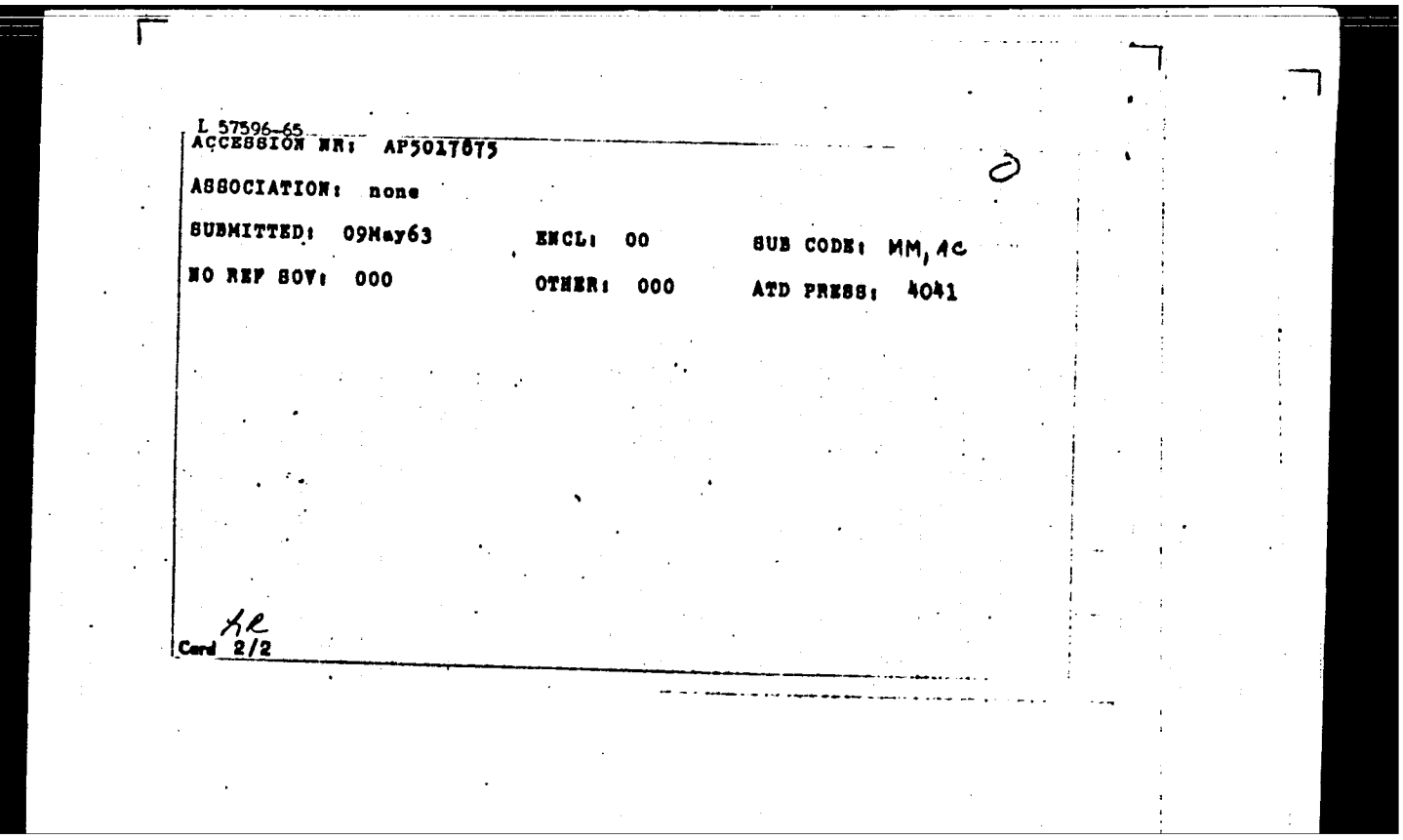

L 57596-65
ACCESSION NR: AP5017075

ASSOCIATION: none

SUBMITTED: 09May63 ENCL: 00 SUB CODE: MM, AC

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4041

Card 2/2

EDELMAN, M. M.

USSR/Medicine - Ascorbic Acid May/Jun 1947
Medicine - Poisons and poisoning

"The Content of Vitamin C in the Tissues of Experimental Animals After Benzol Poisoning," R. I. Yaroslavskaya, M. M. Edelman, F. Y. Gordon, 5 pp

"Farmakol i Toksikol" Vol X, No 3

Tabular results, with discussion, of experiments on frogs and guinea pigs. It is concluded that benzol is not a specific vitamin poison, decreasing the amount of ascorbic acid in an organism. The data obtained, however, do not preclude the use of Vitamin C in cases of benzol intoxication.

PA 14T24

EDEL'MAN, M. R.

Statistical methods in industrial materials supply; with principles of organization and planning. Moskva, Gos. statisticheskoe izd-vo, 1953. 223 p. (54-42273)

HF1051.E4

3(9)

AUTHORS: Zalogin, B. S., Edel'man, M. S. SOV/50-59-4-15/21

TITLE: Use of the Bathythermograph in the Arctic Ocean (Primeneniye batitermografa v arkticheskom more)

PERIODICAL: Meteorologiya i gidrologiya, 1959, Nr 4, pp 58-61 (USSR)

ABSTRACT: For some years, bathythermographs have been made by the industry in the USSR, and are widely used in expeditions and fishing. A survey on the experience made with such use in the Arctic Seas is given here. In the course of a joint expedition in one of the Arctic Seas of the Chair of Oceanology of the Moskovskiy gosudarstvennyy universitet (Moscow State University) and the Arkticheskiy nauchno-issledovatel'skiy institut (Arctic Scientific Research Institute), the apparatus "TB-52" produced in series was used. This bathythermograph is a product of the Moskovskiy zavod gidrometeopriborov (Moscow Works of Hydrometeorological Apparatus). Reversing thermometers were also used simultaneously with the bathythermograph. Both devices were immersed at the same time. The diagrams obtained show a conformity of measurements by means of the bathythermograph and the reversing thermometers. The mean difference computed by 32 bathythermograms was 0.19°, the bathythermograph in

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most cases indicating a lower temperature than the thermometers. Besides these investigations carried out at the station, the bathythermograph was immersed while traveling through an area more than 40 m deep; a particular device was designed for immersing the apparatus, which also eliminated the danger of winding the wire rope around the propeller. Experience taught that for calculating the length of the wire rope thrown out in immersing the bathythermograph to the desired depth it is not correct to extrapolate according to the table supplied with the apparatus. A particular table for shoal-water areas would have to be compiled on the basis of special investigations. Figure 2 shows the temperature-distribution curves obtained at the different stations, figure 4 those obtained en route. These show that the bathythermograph can be widely used both at the stations and on the ships in motion, offering a detailed picture of the structure of the thermocline. Wide water areas can be recorded in a short time by means of the bathythermograph. Finally the intention is expressed to design an apparatus for depths of 0-25 m and 0-50 m. There are 4 figures and 1 table.

S/614/61/000/008/002/004
D037/D113

AUTHORS: Solyankin, Ye.V., and Edel'man, M.S.

TITLE: Some results of the voyage of the "Sevastopol'" expeditionary ship in spring 1959

SOURCE: Moscow. Akademiya nauk SSSR. Okeanograficheskaya komissiya. Byulleten', no. 8, 1961, 24-28

TEXT: On the basis of results obtained in April-May 1959 by the "Zvezda" research ship and the "Sevastopol'" expeditionary ship, the authors attempt to verify a suggestion made by M.S. Edel'man, G.N. Zaytsev and S.I. Potaychuk that the amount of heat conveyed by the Atlantic waters passing through the Faroe-Shetland, Faroe-Iceland and Faroe-Scandinavian straits into the Norwegian Sea would be above average in 1959. A comparison of previously-obtained data showed that the intensity of the flow of the warm Atlantic waters and the bathymetric saline distribution was increasing. Changes in the depth of the heat layer, according to the direction of the flow of the Atlantic waters and the formation and shifting of cold water domes in the Faroe-Shetland strait are described. The dome of cold water in the eastern

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Some results of the ...

part of this strait, observed in mid-April, had disappeared by late May due to the influx of the Atlantic water flow. Investigations were conducted showing the connection between the formation and shifting of cold water domes and changes in the direction and speed of currents. The authors state that the waters of the Faroe-Shetland strait are extremely dynamic, considerable changes occurring in a short period of time. East-Icelandic currents introduce polar water flows into the Faroe-Iceland strait. A comparison of data obtained in April-May 1959, showed that in one month the water temperature in the strait increased by 1-2° in the upper 25-m layer and 0.2 0.5° in the 150-200-m-deep layer. At the end of May 1959, the water temperature in the strait between the Shetland Isles and Scandinavia was more than 8°. Data are given on the temperature, salinity and current speeds which indicated an intensification of the flow of Atlantic waters and an increase in the heat content of the Norwegian Sea. A brief account of the effect of this intensification on the hydrobiological state of the Norwegian Sea based on data supplied by Ye. Pavshtiks and A. Timokhina, is given. In conclusion, the authors state that the suggestion made by Zaytsev, Potaychuk and Edelman on the warming of the Norwegian Sea in 1959, was fully confirmed. There is 1 table.

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BOGDANOV, M.A.; YERMACHENKO, I.A.; POTAYCHUK, S.I.; EDEL'MAN, M.S.

Hydrology in the Faeroe-Iceland area. TRUDY VNIRO 46:61-64 '62.
(MIRA 15:10)

(Faeroe Islands region—Oceanography)
(Iceland region—Oceanography)

EDEL'MAN, M.S.

The northwestern part of the Indian Ocean. Mor. sbor. 49 no.11:64-70 N '65. (MIRA 18:12)

EDELMAN, M.S.

Some characteristics of the hydrology of the waters flowing around Hindustan. Trudy VNIRO 57:79-92 '65.

Brief characteristics of the water masses of the Gulf of Aden and the northern part of the Arabian Sea according to data of the 21 Indian Ocean Expedition of the Azov-Black Sea Scientific Research Institute of Marine Fisheries and Oceanography. Ibid.:93-107 (MIRA 18:6)

EDEL'MAN N. M.

AUTHORS: Fridlyander, I.N., Edel'man, N.M., Danilov, Yu.S., 20-2-25/62

TITLE: An Investigation of the Static Endurance of the Alloys Al-Zn, Al-Mg, and Al-Cu. (Issledovaniye staticheskoy vynoslivosti splavov Al-Zn, Al-Mg, i Al-Cu.)

PERIODICAL: Doklady Akad.Nauk SSSR, 1957, Vol. 115, Nr 2, pp. 287-289 (USSR)

ABSTRACT: Static (slow) repeated stresses lead in a small number of cycles to the rupture as variable stresses which oscillate with great frequency. In the tests made by the authors the frequency of the stresses amounted to 6 to 8 cycles per minute. Three diagrams illustrate the variation of the mechanical characteristics and of the static endurance (number N) of the alloys Al-Zn, Al-Mg and Al-Cu. The testing was carried out in the following manner: In the first stage 2000 stresses were taken at the upper tension of 0,7 σ_B^H (σ_B^H signifies here the solidity of the indented sample), then 1000 cycles at σ_o = 0,8 σ_B^H and finally the testing was continued at σ_o = 0,9σ_B^H until the rupture. The number N corresponds to the number of cycles at σ_o = 0,9 σ_B^H. The lower stress amounted in all cases to 0,07 σ_B^H.

The number N very rapidly increases when the concentration of the admixture is increased and then again strongly decreases. Above a certain concentration a solid solution must more easily decompose than a less concentrated solution. Less concentrated solutions (Al + 2% Cu) solidity under the influence of elevated temperature. The more

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An Investigation of the Static Endurance of the Alloys Al-Zn, Al-Mg, and Al-Cu. 20-2-25/62

concentrated solutions lose solidity in this case. The position of the maximum is also discussed. The maximum values of N in the alloys Al-Zn, Al-Mg, and Al-Cu amount to 32.000, 5000 and 11.000, the minimum values at portions of 13% Zn, 5% Mg and 8% Cu in the respective solutions amount to 150, 2000 and 300. No connection was observed between N and the other mechanical properties. In order to increase the static endurance, the alloys shall not be too much concentrated solid solutions. There are 4 figures, 1 table and 3 Slavic references.

PRESENTED: March 11, 1957 by A.A.Bocharov, Academician.

SUBMITTED: January 22, 1957

AVAILABLE: Library of Congress.

Card 2/2

EIDEL'MAN, N.M.; MALYSHEVA, M.S.

Biology of the beetle Scolytus intricatus Ratz. (Coleoptera, Ipidae) in oak groves of the Savala forestry, Voronezh Province [with summary in English]. Ent. oboz. 38 no.2:368-381 '59. (MIRA 12:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zashchityrasteniy Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I. Lenina, Leningrad.
(Savala Valley--Bark beetles) (Oak--Diseases and pests)

S/078/61/006/005/010/015
B121/B208

AUTHORS: Zakharov, A. M., Fridlyander, I. N., and Edel'man, N. M.

TITLE: Study of the phase diagram of the quaternary system Al-Zn-Mg-Cu in the range of high aluminum content

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 5, 1961, 1165 - 1171

TEXT: In order to clarify some contradictory data on the phase composition of the alloys of the system Al-Zn-Mg-Cu in the papers by G. V. Kelevich-Kizilevich (Ref. 24: Kandidatskaya dissertatsiya, MATI, 1947) and by D. G. Straubridge, W. Hume-Rothery, and A. T. Little (Ref. 28: J. Inst. Met., 74, 191, 1947) the authors studied various alloys of this system at temperatures of 430 and 200°C. The alloys with compositions of 4, 6, and 8% zinc, of 0,5-5% and 0,5-7% Cu and Mg, the rest Al, were prepared in the electric furnace. 99,95% Al, 99,945% magnesium, and 99,95% Zn were used as initial materials. The alloys were microscopically examined after hardening and annealing at the corresponding temperatures.

Study of the phase diagram of ...

To attain the equilibrium state, the alloys were subject to heat treatment in the following way: The samples were slowly heated to 460°C in evacuated quartz ampuls, and left for 7 hr at this temperature. A part of the samples was then hardened, and the rest was cooled to 430°C. After 10 hr the samples were hardened by a stepwise thermal process for 15 hr at 315°C, and for 18 hr at 300°C, then cooled to 200°C within 48 hr, and hardened again with cold water. The following etching agents were used to develop the various phases for studying the alloys: 10% NaOH, Keller reagent (0,5 % HF + 1,5 % HCl + 2,5 % HNOS + 95,5 % H_2O) 20-30 sec, 0,5 % HF 15-30 sec, 2% HNO_3 solution 15-20 sec, concentrated HNO_3 5-7 sec, and vapors of concentrated HNO_3 7-10 sec. The phases Q ($CuAl_2$), S(Al_2CuMg), and T (solution of Al_6CuMg_4 and $Al_2Zn_3Mg_3$) were found to be present in equilibrium in alloys with a 5% Zn content at temperatures of 460, 430, and 200°C. The appearance of a phase Z in the alloys with 8% zinc is possible not only at 460°, but also at lower temperatures such as 430 and 200°C. To determine the phases of the alloys with 6 and 8% zinc, the grindings were etched with vapors of concentrated nitric acid. The

Study of the phase diagram of ...

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B121/B208

stabilizing phases for the economic high-strength alloys were determined from the results obtained. The phases M, S, and T appear as the stabilizing phases for the alloys Б 95 (V 95) (5-7.0 % Zn, 1.4-2.0 % Cu, 1.8-2.8 % Mg, 0.2-0.6 % Mn, 0.1-0.25 % Cr, rest Al), Б 96 (V 96) (7.6-8.6 Zn, 2.2-2.8 % Cu, 2.5-3.2 % Mg, 0.2-0.5 % Mn, 0.1-0.25 % Cr, rest Al), and the phases M and S for the alloy Б 94 (V 94) (6.0-6.7 % Zn, 1.8-2.4 % Cu, 1.2-1.6 % Mg, 0.02-0.08 % Ti, rest Al). For the alloy Б 93 (V 93) (6.8-7.8 % Zn, 0.8-1.2 % Cu, 1.7-2.1 % Mg, rest Al) the phase M, and for the alloy Б 93 - 1 (V 93 - 1)(5.0-5.6 % Zn, 0.8-1.2 % Cu, 2.8-3.6 % Mg, rest Al) the phases T, S, and possibly M appear as the stabilizing phases. There are 4 figures and 39 references: 17 Soviet-bloc and 22 non-Soviet-bloc. The four most recent references to English-language publications read as follows: Ref. 9: W. Köster, W. Dullenkopf, J. Metals, 28, 363 (1936); Ref. 10: W.L. Fink, L.A. Willey, TAIMME, 124, 78 (1937); Ref. 11: E. Butchers; G. V. Raynor, W. Hume-Rothery, J. Inst. Met., 69, 209 (1943); Ref. 12: A. T. Little, G. V. Raynor, W. Hume-Rothery, J. Inst. Met., 69, 423 (1943).

SUBMITTED: April 22, 1960

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S/839/62/000/000/002/004
E193/E383

AUTHOR: Edel'man, N.M., Engineer

TITLE: Aluminium alloys in civil engineering

SOURCE: Stroitel'nyye konstruktsii iz alyuminiyevykh splavov. Ed. by S. V. Taranovskiy. Moscow, Gosstroyizdat, 1962. 44 - 56

TEXT: The present article is concerned with three alloys based on the Al-Mg-Si system which are known in the Soviet Union as alloys АД31 (AD31), АД33 (AD33) and АВ (AV). The alloy AD31, which contains 0.4-0.9% Mg, 0.2-0.7% Si and small additions of Cu, Cr, Mn and Ti, is equivalent to the American alloy 6063. Similarly, alloy AD33, containing 0.8-1.2% Mn, 0.4-0.8% Si, 0.15-0.4% Cu and 0.15-0.35% Cr, is identical with the American alloy 6061. Finally, alloy AV, containing 0.45-1.0% Mn, 0.5-1.2% Si and varying amounts of Cu, Mn and Cr, corresponds to the American alloy 6151. Since data on the properties of alloy AV - which has been covered by ГОСТ (GOST) since 1935 - are well known, only the properties of alloys Ad31 and AD33, as determined by the present authors in collaboration with E.I. Starostina and Ye.A. Gubareva, are dealt with in this

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Aluminium alloys in civil S/839/62/000/000/002/004
E193/E383

paper. Tabulated information covers the following subjects: 1) effect of natural ageing on the mechanical properties of the alloys; 2) mechanical properties of artificially aged alloys; 3) mechanical properties of extruded and rolled shapes in the aged condition and variation in these properties across the length of various sections; 4) mechanical properties of welds in both alloys; 5) effect of corrosion on the mechanical properties of extruded rods and rolled sheet; 6) thermal-expansion coefficients for various temperature intervals; 7) data on the density, heat-conductivity, specific heat and electrical resistance. There are 12 tables.

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ACCESSION NR: AT4010740 S/2839/63/000/002/0017/0024

AUTHOR: Edel'man, N. M. (Engineer); Starostina, Z. I. (Engineer)

TITLE: The new deformable aluminum alloy AD35

SOURCE: ASIA SSSR. Institut stroitel'ny*kh konstruktsiy. Stroitel'ny*ye konstruktsii iz alyuminiyevy*kh splavov, no. 2, 1963, 17-24

TOPIC TAGS: aluminum alloy, heat treatable alluminum alloy, alloy AD35, corrosion resistant aluminum alloy, weldable aluminum alloy, construction aluminum alloy, aluminim, aluminum magnesium silicon alloy

ABSTRACT: The article describes experimental alloy AD35, 4th in the Al-Mg-Si series, which is currently undergoing production tests in the SSSR. The other three (AD31, AD33 and AV) are currently used in the manufacture of numerous types of semifinished products. The chemical composition of AD35 includes 0.8 — 1.4% Mg, 0.8 — 1.2% Si, and 0.5 — 0.9% Mn. It has good corrosion resistance, machinability, enameling and polishing characteristics, welds easily and is free of deficit Cu. The alloy is recommended for wide use in constructions requiring medium strength and good corrosion resistance. Use of the material is not recommended for temperatures above 170C. Several tables illustrate the mechanical properties (longitudinal and transverse) for sheets, rods, angles, bars, as well as the effect

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ACCESSION NR: AT4010740

of heat, corrosion and tempering-aging interval on such properties. The specific gravity of the alloy is 2.72, the linear expansion coefficient ranges from $23.6 \cdot 10^{-6}$ at 20 — 100C to $29.7 \cdot 10^{-6}$ at 300-400C, the thermal conductivity is 0.41 — 0.44 cal/cm sec. degrees at 100 — 400C, the specific resistance is 0.0329 ohm mm^2/m. "Ye. A. Gubarova took part in studying the properties of alloy AD35. The corrosion resistance of semifinished products made of alloy AD35 was studied by Ye. I. Burova and L. I. Agapova. The profiles of PS754-5 were studied by Ye. I. Kutaytseva and S. M. Ambartsumyan. Semifinished products of alloy AD35 were welded by Yu. P. Arbuzov." Orig. art. has: 7 tables.

ASSOCIATION: Institut stroitel'ny*kh konstruktsiy, ASIA SSSR (Institute for Structural Components, ASIA SSSR)

SUBMITTED: 00 DATE ACQ: 17Jan64 ENCL: 00

SUB CODE: MA, ML NO REF SOV: 000 OTHER: 000

2/2

ard

ACCESSION NR: AT4037643 S/2981/64/000/003/0005/0026

AUTHOR: Edel'man, N. M.; Fridlyander, I. N.; Starostina, Z. I.

TITLE: A study of the properties of alloys in the Al-Mg-Si system

SOURCE: Alyuminiyevy*ye splavy*, no. 3, 1964. Deformiruyemy*ye splavy* (Malleable alloys), 5-26

TOPIC TAGS: aluminum alloy, aluminum magnesium silicon alloy, alloy AV, alloy AD31, alloy AD33, alloy AD35, alloy mechanical property, alloy chemical composition, alloy corrosion resistance, alloy weldability, alloy heat treatment, alloy stampability, silicon containing alloy, magnesium containing alloy

ABSTRACT: Tests were carried out on sheet samples (1.5 mm thick) of 87 alloy compositions to determine the effects of alloy composition and heat treatment conditions on mechanical properties, the effects of composition on corrosion resistance, and the weldability. Content of Mg varied by 0.2% from 0 to 2.0%, Si by 0.2 or 0.4% from 0.0 or 0.2% to 2.0% for each Mg content. The samples were annealed (1 hr. at 370C, cooled in a furnace to 150C, then in free air) or hardened (530C, niter bath) and tested either prior to aging, after 15 days of natural aging or after 12 hrs. of artificial aging at 160C. Machine welding operations were in a argon atmosphere, using a nonconsumable electrode and welding rods of the basic

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ACCESSION NR: AT4037643

material. Analysis of concentration triangles plotted for the system indicates that peak strength for all hardening procedures used applies to alloys in the triphasic area $\alpha + Mg_2Si + Si$ at Mg + Si = 2.5 to 4% total. The alloys exhibited good plasticity after annealing, as well as after hardening with artificial aging or prior to aging. Stamping, cupping, flanging and extrusion are possible at high levels of deformation. Corrosion resistance to immersion in 3% NaCl with 0.1% H_2O_2 added decreased with an increase in Si and the Mg_2Si phase, was relatively unaffected by an increase in Mg, and deteriorated sharply in the direction from excess Mg to excess Si where Mg_2Si was constant. Weldability was adequate for argon arc roll or spot welding, tensile strength of seams was 60-70% of initial material levels and was restored to 90-95% by subsequent heat treatment. Tendency to crystallization cracking was high when using welding rods of original material (cracking coefficient 60-80%), but use of SVAK5 rods (5% Si, balance Al) reduced that value to 0-20%. Use of such rods did not affect strength, plasticity or corrosion resistance. Alloys in this system are recommended for applications requiring high corrosion resistance, high yield points (compared to magnalium), good weldability and a decorative appearance in riveted or cemented constructions,

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ACCESSION NR: AT4037643

as well as welded structures where lowered strength of weld joints can be tolerated. Three alloys (AD31, AD33 and AD35, composition and mechanical properties given) were submitted for industrial use as a result of this study. "Ye. A. Gubareva, Ye. I. Burova, L. A. Agapova, Yu. P. Arbuzov and R. N. Naumova also took part in the work." Orig. art. has: 3 tables and 16 graphs.

ASSOCIATION: none

SUBMITTED: 00	DATE ACQ: 04Jun64	ENCL: 00
SUB CODE: MM	NO REF SOV: 008	OTHER: 002

Card 3/3

ARBUZOV, Yu.P.; Prinimali uchastiye: FRIDLYANDER, I.N.; EDEL'MAN, N.M.; BUROVA, Ye.I.; SOLOV'YEVA, V.V.; STAROSTINA, Z.I.; GUBAREVA, Ye.A.

Properties of welded joints in AD31 and AD33 aluminum alloys. Alium. splavy no.3:36-45 '64. (MIRA 17:6)

MATVEYEV, B.I.; DZYUBENKO, M.I.; Prinimala uchastiye: EDEL'MAN, N.M.

Effect of the temperature of ingot homogenizing on changes in the mechanical properties of B95 alloy shapes. Alium. splavy no.3:397-404 '64. (MIRA 17:6)

L 37160-66 EWT(m)/EWP(w)/EWP(v)/T/EWP(t)/ETI/EWP(k) IJP(c) JH/JD/HM/WB/GD/HW

ACC NR: AT6016415 (N) SOURCE CODE: UR/0000/65/000/000/0093/0101

AUTHORS: Edel'man, N. M.; Starostina, Z. I.

ORG: none

TITLE: Deformable aluminum alloy AD35

SOURCE: AN SSSR. Institut metallurgii, Metallovedeniye legkikh splavov (Metallography of light alloys). Moscow, Izd-vo Nauka, 1965, 93-101

TOPIC TAGS: aluminum alloy, silicon, manganese, magnesium / AD35 aluminum alloy

ABSTRACT: The mechanical properties, welding behavior, and corrosion stability of the alloy AD35 (0.8--1.4% Mg, 0.8--1.2% Si, and 0.5--0.9% Mn) were investigated. This investigation supplements the results of an earlier study by N. M. Edel'man, I.N. Fridlyander, and Z. I. Starostina (Issledovaniye svoystv splavov sistemy Al--Mg--Si--Sb. Alyuminiyevyye splavy, vyp. 3, Izd-vo Mashinostroyeniye, 1964). The experimental results are tabulated. Photographs of the macrostructure of several forged objects manufactured from alloy AD35 are presented. It is concluded that alloy AD35 is a suitable material for applications requiring moderate mechanical strength and increased corrosion stability as compared with alloy AV. Ye. A. Novikova and T. I. Ivanova participated in the determination of the mechanical properties of the alloy AD35. Welding of AD35 semifinished products was carried out

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L 37160-66

ACC NR: AT6016415

by Yu. P. Arbuzov. Ye. I. Burovaya and L. I. Agapova carried out the corrosion studies, and the investigation of the mechanical properties of the profile PS754-5 was carried out by Ye. I. Kutaytseva and S. M. Ambartsumyan. Orig. art. has: 8 tables and 2 figures.

SUB CODE: 11/ SUBM DATE: 16Sep65/ ORIG REF: 005

Card 2/2 af

ACC NR: AT6024947 SOURCE CODE: UR/2961/66/000/004/0312/0321

AUTHOR: Edel'man, N. M.; Petrunin, A. M.; Shkrob, V. K.; Starostina, Z. I.; Gudkov, N. I.

ORG: none

TITLE: Use of AD33 wrought aluminum alloy in the manufacture of large parts operating under marine conditions

SOURCE: Alyuminiyevyye splavy, no. 4, 1966. Zharoprochnyye i vysokoprochnyye splavy (Heat-resistant and high-strength alloys), 312-321

TOPIC TAGS: aluminum alloy, high strength alloy, metal property/AD33 aluminum alloy

ABSTRACT: A method of manufacturing large AD33 wrought aluminum-alloy parts has been developed. The alloy contains 0.83% Mg, 0.63% Si, 0.4% Cu, and 0.2% Cr with an impurity content of not more than 0.1% Mn, 0.23% Fe, 0.17% Zn and 0.035% Ti. Machined, round ingots, 570 mm in diameter and 1280 mm long, and 292 mm in diameter and 740 mm long were forged into disks 820 mm in diameter and 600 mm thick, and 560 mm in diameter and 375 mm thick, respectively. The disks were solution-heat treated at 520C, water quenched, and artificially aged at 160C for 17 hr. In this condition the disks had a tensile strength of 30—35 kg/mm^2, a yield strength of 27—30 kg/mm^2, and an elongation of 8—12%. Anisotropy of mechanical properties did not exceed 2 kg

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L 41311-66
ACC NR: AT6024947

for tensile strength and 5% for elongation. The fatigue limit (2 million cycles) was about the same as that of rolled or extruded parts, 9.5—10 kg/mm^2 for smooth specimens and 6.5 kg/mm^2 for notched specimens. The specimens cut from forgings were tested for corrosion resistance fully immersed in a 3% solution of NaCl + 0.1% H_2O_2 for 3 months. The susceptibility to corrosion was calculated from the reduction in strength and elongation. The loss of tensile strength varied (depending on the reduction in forging) from 1.2—15.1%, and that of elongation, from 7.5—80.0%. Generally, AK33 alloy is more suitable for operating under marine conditions than ML5, A18, A19 and AK23 alloy. However, smaller ingots must be used for forged parts, the ingots should be homogenized prior to forging, and forging conditions should ensure high and uniform reduction. Orig. art. has: 1 figure and 8 tables. [TD]

SUB CODE: 11, 13/ SUBM DATE: none/ ATD PRESS: 5158

Card 2/2 hs

L 46980-66 EWP(k)/EWT(m)/T/EWP(w)/EWP(t)/ETI IJP(c) JH/JD/HW

ACC NR: AT6024948 (A,N) SOURCE CODE: UR/2981/66/000/004/0322/0330

AUTHOR: Edel'man, N. M.; Vasil'yeva, N. I.; Starostina, Z. I.

ORG: none

TITLE: Preparation of pressed semifinished products from AD31 alloy

SOURCE: Alyuminiyevyye splavy, no. 4, 1966. Zharoprochnyye i vysokoprochnyye splavy (Heat resistant and high-strength alloys), 322-330

TOPIC TAGS: aluminum alloy property, metal pressing

ABSTRACT: The cause of the formation of macrocrystalline structure in sections of AD31 alloy (composition in %: Cu 0.024, Mg 0.75, Mn 0.05, Fe 0.29, Si 0.42, Zn 0.02, Ti 0.05, bal. aluminum) was studied. The effect of technological factors (pressing temperature, degree of deformation during straightening and heat treatment) on the structure of the sections was determined. It is shown that in order to obtain high-quality sections without roughness (including thin-walled hollow ones of complex configuration), they should be prepared as follows: the temperature of the ingot during pressing should be no less than 480-500°C, and that of the container, no less than 400-420°C. The temperature of heating for quenching should be 520±5°C; the holding time for quenching thin-walled sections should not exceed 15-20 min. The sections should be straightened on stretching machines with a degree of deformation of no more than 4%. The artificial aging of pressed semifinished products should be carried out

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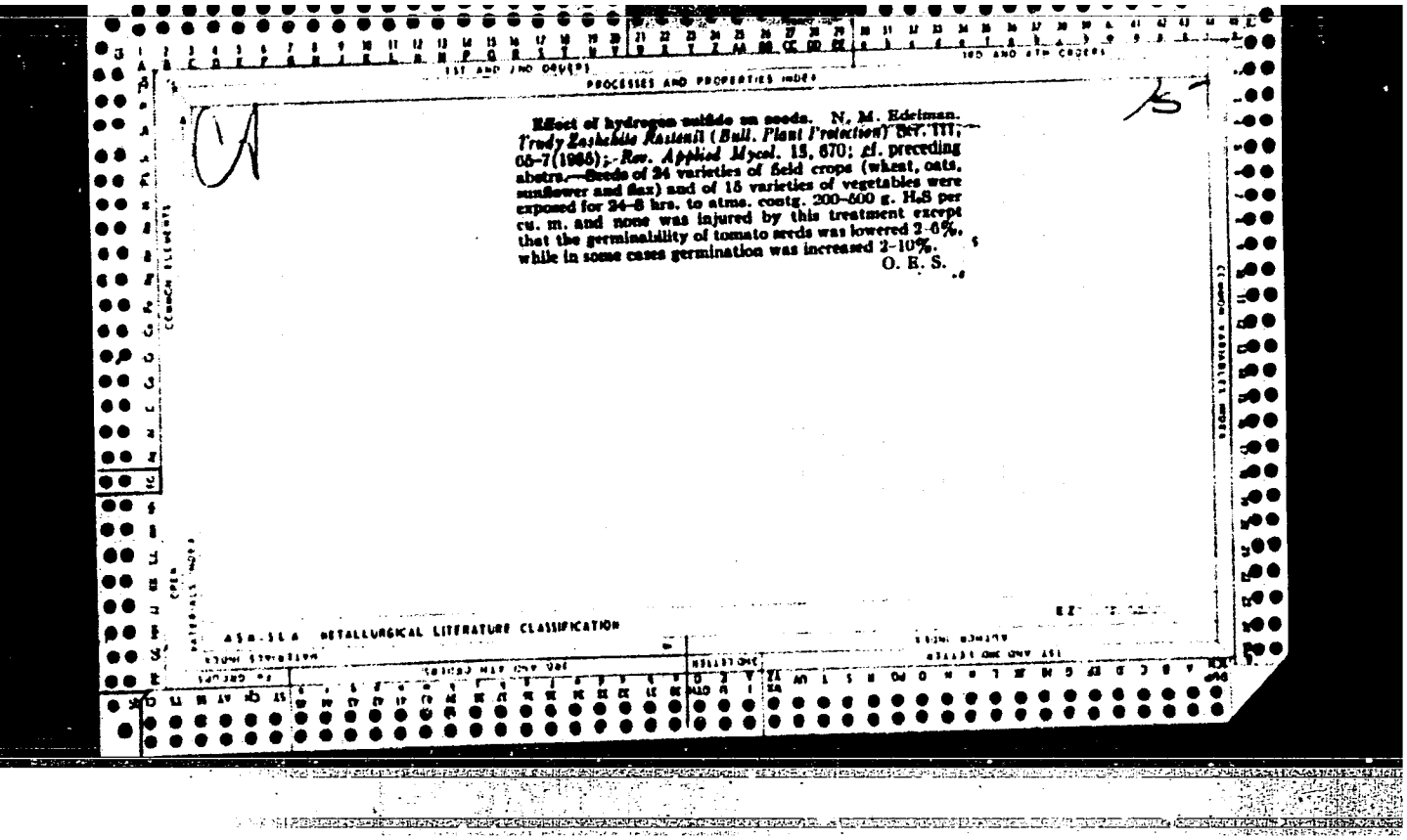
L 46980-66
ACC NR: AT6024948

at 165±5°C for 10 hr. The proposed optimum process for preparing sections of AD31 alloy makes it possible to obtain products with high and stable mechanical properties, a finely granular structure, and an attractive decorative appearance. Orig. art. has: 4 figures.

SUB CODE: 11/ SUBM DATE: none

Card 2/2



PROCESSES AND PROPERTIES INDEX

Effect of hydrogen sulfide on seeds. N. M. Edelman. *Trudy Zashchite Rastenii (Bull. Plant Protection)* 1937, 111; 55–7(1938); *Rev. Applied Mycol.* 15, 670; *cf.* preceding abstrs.—Seeds of 24 varieties of field crops (wheat, oats, sunflower and flax) and of 15 varieties of vegetables were exposed for 24–6 hrs. to atms. contg. 200–600 g. H_2S per cu. m. and none was injured by this treatment except that the germinability of tomato seeds was lowered 2–6%, while in some cases germination was increased 2–10%.
O. E. S.

A S M - S L A METALLURGICAL LITERATURE CLASSIFICATION

EDEL'MAN, N.M., kand.biol.nauk

Wintering sites and conditions of certain species of darkling beetles. Trudy VIZR no.1:163-167 '48. (MIRA 11:7)
(Darkling beetles)

EDEL'MAN, N., M., Pa. 150T10

USSR/Biology - Insecticides 21 Jul 49
DDT

"Certain Physiological Factors Determining the Resistance of Insects to DDT and Hexachlorocyclohexane (GKhTsG)," N. G. Berim, N. M. Edel'man, Leningrad Agr Inst, All-Union Sci Res Inst of Plant Protection, 3½ pp

"Dok Ak Nauk SSSR" Vol LXVII, No 3

Obtained data in studies on subject matter, using beetles and maggots of Agelastica alni type in various periods of their development, and beetles -- Pseudophonus pubescens Muell. Proved that resistance of insects to DDT and GKhTsG changes according to seasons and physiological conditions. This should be considered in using insecticides. Submitted by Ye. N. Pavlovskiy 30 May 49

Pa. 150T10

YEDEL'MAN, N. M.

BEETLES

Effect of low temperatures on beetles of the family of darkling beetles (Tenebrionidae) N. M. Yedel'man. Ent. ob. 31 No. 3-4, 1951.

9. Monthly List of Russian Accessions, Library of Congress, September 1952. Unclassified.

EDEL'MAN, N. M.

USSR/Biology (Agriculture) - Insecticides Nov 51

"Some Peculiarities of the Physiological Reaction of Balanius Glandium Marsch (I) Toward DDT, Hexach lorocyclohexane, and Dichloroethane," N.M.Edel'man, All-Union Sci Res Inst of Plant Protection

"Dok Ak Nauk SSSR" Vol LXXXI, No 1, pp 117-120

A mixt of DDT and hexachlorocyclohexane (HCH) brings about in larvae of I and other resistant pests a greater lowering of the respiratory coeff and a greater increase of respiratory intensity (condition corresponding to a higher rate of extermination) than either substance separately. Dichloroethane has a different effect: It lowers intensity

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USSR/Biology (Agriculture) - Insecticides Nov 51
(Contd)

of respiration and increases water content of larvae to the max extent when it is most effective. Study of seasonal differences showed that all 3 insecticides are most effective in July, when respiratory intensity is highest and the fat deposit is lowest. Thus, the effectiveness, of the insecticides can presumably be enhanced by combining them in such a manner that a max increase of gas metabolism (intensity of respiration) is achieved.

19272

BERIM, N.G.; EDEL'MAN, N.M.

Physiological resistance of insects to DDT and benzene hexachloride and ways of overcoming it. Ent.oboz. 32:15-26 '52. (MLRA 7:1)

1. Leningradskiy sel'skokhozyaystvennyy institut. 2.Vsesoyuznyy Nauchno-issledovatel'skiy institut zashchity rasteniy Akademii sel'skokhozyaystvennykh nauk im. V.I.Lenina, Leningrad.
(Insecticides)

CA

II-I

Effect of feeding conditions on the physiological state of Perthotrix dispar and Melasoma populi and tremula. N. M. Kiel'man (All-Union Plant Protection Inst., Leningrad). *Doklady Akad. Nauk S.S.S.R.* 84, 849-52(1952).—Caterpillars of *P. dispar* fed on ordinary oak leaves, birch leaves, or bird cherry leaves, as well as on alternate diets of these, were examd. Expts. of similar nature were run with larvae of *M. populi* and *tremula* fed on *Populus nigra* and *Salix caprea* leaves. The best physiol. state in respect to mortality, size, and wt. is found in caterpillars feeding on oak, the worst in those feeding on birch. *M. populi* feeding on *P. nigra* developed better than those on *S. caprea*. *M. tremula* grew equally well on both sources of food. The caterpillars on oak diet exhibit predominantly high carbohydrate-protein metabolism, those on birch show prevalence of lipide metabolism. Lipase activity in specimens fed on oak is much lower than in those fed on birch. The beetle larvae showed a similar result, i.e., enzyme activity was high in specimens on the less favorable diet. Switch from a favorable to an unfavorable diet produces deterioration of the general condition of the specimen and vice versa.

G. M. Kosolapoff

EDEL'MAN, N.M.

Influence of feeding conditions on the development of the gypsy moth (Lymantria dispar L.) and the poplar leaf beetles (Melasoma populi L. and M. tremulae L.). Ent.oboz. 33:36-46 '53. (MLRA 7:5)

1. Vsesoyuznyy Nauchno-issledovatel'skiy institut zashchity rasteniy, Leningrad. (Gypsy moth) (Leaf beetles)

EDEL'MAN, N.M.

Biology of the gypsy moth in Kuba District, Azerbaijan S.S.R. [with English summary in insert]. Zool.zhur. 35 no.4:572-582 Ap '56. (MLRA 9:8)

1. Laboratoriya vrediteley i bolezney polezashchitnykh nasazhdeniy Vsesoyuznogo nauchno-issledovatel'skogo instituta zashchity rasteniy. (Kuba District--Gypsy moth)

EDEL'MAN, N.M., kand.biol.nauk

Leaf miner and trunk pest fauna in forest belts of the Kamennaya Steppe and changes in its composition and numbers during the past 20 years. Trudy VIZR no.8:143-164 '57. (MIRA 12:8)
(Kamennaya Steppe--Forest insects)

USSR / General and Specialized Zoology. Insects. P
Forest Pests.

Abs Jour : Ref Zhur - Biol., No 17, 1958, No 78341

Author : Edelman, N. M.
Inst : Not given
Title : Methods of Utilizing the Food Specialization of the Gypsy Moth for Prophylactic Purposes.

Orig Pub : Zool. zh., 1957, 36, No 3, 408-420

Abstract : Investigations were carried out in the forest bands of Kamenostep' (Voronezh oblast). It was established that the adults of the gypsy moth (GM) lay eggs on the different arboreal-bush species, and that young caterpillars finding themselves on species on which they could not feed were doomed to perish. With the object of decreasing the damage produced by the (GM)

Card 1/2 (continued on page 32)

USSR / General and Specialized Zoology. Insects. P
Forest Pests.

Abs Jour : Ref Zhur - Biol., No 17, 1958, 78341

caterpillars on the main species in the steppe forest, oak, it is recommended to found plantations introducing such species: 1) which are not damaged by (GM) (ash, elm, wild pear-tree, tartar maple, yellow acacia, honeysuckle, spindle tree); 2) damaged by (GM), but either delayed in development in comparison with it (the late variety of the cherry oak) or feeding which has unfavorable effect on the development of the former, producing a disturbance of metabolism in the metabolism in the caterpillars and low fecundity in the moths (lime tree, birch, Norway Maple, ash-leaved maple). -- V. I. Grimal'skiy

Card 2/2

EDEL'MAN, N.M., kand.biologicheskikh nauk

Some data on the biology of the oak weevil Gasterocercus depressirostris F. Trudy VIZR no.15:209-214 '60. (MIRA 14:3)
(Voronezh Province—Weevils)(Oak—Diseases and pests)

EDEL'MAN, N.M., kand.biologicheskikh nauk

Using the respiration energy of insects in entomological research.
Trudy VIZR no.15:317-328 '60. (MIRA 14:3)
(Insecticides)(Respiration) (Entomological research)

EDEL'MAN, N.M. (Leningrad)

Nutrition of insects reared on artifical media. Usp. sovr. biol. 51 no. 2:204-219 Mr-Ap '61. (MIRA 14:4)
(ENTOMOLOGICAL RESEARCH)

EDEL'MAN, N.M.

Effect of the biochemical composition of food on age-related changes in the physiological condition of insects. Vop. ekol. 7:211-213 '62. (MIRA 16:5)

1. Vsesoyuznyy institut zashchity rasteniy, Leningrad.
(Insects—Food)

EDELMAN,N.M.,(Edel'man, N.M.)

Artificial feeding of insects. Analele biol 16 no.1:93-111 Ja-F '62

EDEL'MAN, N.M.

Evaluation of the effect of individual feed components on the development of phytophagous insects on artificial media. Zool. zhur. 41 no.7:1013-1027 Jl '62. (MIRA 15:11)

1. U.S.S.R. Institute of Plant Protection, Leningrad.
(Phytophaga) (Insects—Food)

EDEL'MAN, N.M.; EFROS, A.M.

Effect of growth-promoting substances on phytophagus insects. Dokl. AN SSSR 142 no.5:1172-1175 F '62. (MIRA 15:2)

1. Vsesoyuznyy institut zashchity rasteniy i Leningradskiy sel'skokhozyaystvennyy institut. Predstavleno akademikom Ye.N.Pavlovskim.

(BENZIMIDAZOLE)
(INSECTS—FOOD)

EDEL'MAN, N.M.

Effect of the conditions of feeding on age-related changes in the physiological state of the larvae of some insects feeding on tree leaves. Ent. obozr. 42 no.1:11-21 '63. (MIRA 16:8)

1. Vsesoyuznyy institut zashchity rasteniy, Leningrad.
(Larvae--Insects) (Insects--Food) (Trees--Diseases and pests)

EDEL'MAN, S., kand. ekonom. nauk

Trade with intermediate products. Sov. torg. 33 no.7:20-23 Jl '59. (MIRA 12:9)
(Food industry)

EDEL'MAN, Sh.I.

Progressive work methods of equipment operators in the acid-washing section of a rectfication unit. Koks i khim. no.3:61-62 '56.
(MLRA 9:8)

1. Yenakiyevskiy koksokhimicheskiy zavod.
(Benzene) (Toluene)

SOV/68-59-7-22/33

AUTHORS: Glezer, I.G., Edel'man, Sh.I., Ionina, M.A. and Kiseleva, N.M.

TITLE: Experience of the Operation of a Plant for the Continuous Washing of Benzole

PERIODICAL: Koks i khimiya, 1959, Nr 7, pp 54 - 57 (USSR)

ABSTRACT: Operation of the plant for the continuous washing of raw benzole is described. The plant was erected at the Yenakiyevo Works in 1955 and underwent a number of modifications. The scheme finally adopted is as follows: raw benzole-toluole-xylole fraction (95% distills over at 140 - 145°C) and concentrated sulphuric acid flows from gravity tanks through a proportioning equipment into a centrifugal pump where the initial mixing takes place, the pump passes the mixture through 8 mixing balls in series (250 mm dia made from cast iron) interconnected with 1" pipe forming an angle of 90° between the inlets and outlets. Here the main part of the reaction takes place. In order to prolong the time of contact of the fraction with the acid, the mixture is passed into a contact vessel (cylindrical vessel - no details of the internal design are given). From the contact vessel the

Card 1/3

Experience of the Operation of a Plant for the Continuous Washing of Benzole

mixture is passed to a mixing ball to which technical water for the regeneration of acid is added. From this mixer the mixture is passed to a settling tank where the regenerated acid and acid tar settle. The regenerated acid flows continuously by gravity into a storage tank. The acid tar is removed periodically once every 2 - 3 days. The acid washed fraction flows by gravity from the settling tank into a bowl mixer to which a centrifugal pump passes to aqueous solution of alkali. The mixture is passed into a settling tank from which alkali is passed into an intermediate tank for further re-use while the washed benzole is passed into a storage tank. A temperature of 45 - 48°C is maintained throughout the process. In winter this temperature is maintained by preheating the raw fraction to 27 - 30°C. The con-

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Experience of the Operation of a Plant for the Continuous Washing of Benzole

sumption of acid depends on the temperature at which 95% of the fraction distills over (Table 1). The average consumption of acid (after subtraction of the regenerated acid), amounts to 15 kg/ton of benzole. The wash losses of benzole were decreased from 6.8% in 1955 to 3.9% in 1957 (Table 2). The installation is recommended for general use.
There is 1 figure and 2 tables.

ASSOCIATION: Yenakiyeskiy koksokhimicheskiy zavod (Yenakiyevo Coking Works)

SOV/68-59-8-16/32

AUTHOR: Edel'man, Sh.I.

TITLE: Continuous Separation of a Toluole Fraction (Nepreryvnyy otbor toluola)

PERIODICAL: Koks i khimiya, 1959, Nr 8, pp 34-35 (USSR)

ABSTRACT: A description of the scheme for the continuous separation of a toluole fraction during the distillation of raw benzole introduced on the Yenakiyevo Coking Works is given. Washed benzole-toluole-xylole fraction is first separated from distillation residues. The distillate is then separated into benzole fraction (heads) and toluole xylole fraction (bottom of the column). The latter fraction with a temperature of the start of boil.. - 112-114°C is passed into the toluole column (40 plates) in which it is separated into the toluole fraction and xylole-solvent naphtha fractions (Figure). The above resulted in a 10% increase in the throughput of the plant and an improvement in the quality of pure products

Card 1/2

Continuous Separation of a Toluole Fraction

(not specified). There is 1 figure.

ASSOCIATION: Yenakiyevskiy koksokhimicheskiy zavod
(Yenakiyevo Coking Works)

S/068/60/000/001/004/006
E071/E433

AUTHORS: Glazunov, A.A., Glezer, I.G., Ionina, M.A., Edel'man, Sh.I. and Zemblevskiy, K.K.

TITLE: Utilization of the Pyrolysis Tar-Wash Product From Synthetic Alcohol Plants

PERIODICAL: Koks i khimiya, 1960, No.1, pp.44-47

TEXT: In utilizing petroleum and natural gas in the production of synthetic alcohol, the gases are cracked in order to increase their ethylene content. The tar formed during the process under the name of pyrolysis tar was treated as a waste product. The authors carried out an investigation of the chemical composition of this product in order to determine its possible application for the production of aromatic hydrocarbons. A sample of the tar from the Saratov Works was taken for the investigation (sp.gr. 0.873, IBB 65°; 100° 54%; 125° 68%; 150° 75%; 180° 86%). Rectification on a column equivalent to 24 theoretical plates (Table 1) indicated that the tar contained about 50% of benzole, toluole, xylole and solvent naphtha; unsaturated compounds were distributed non-uniformly concentrating mainly in the head and

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Utilization of the Pyrolysis Tar-Wash Product From Synthetic Alcohol Plants

bottom fractions. Laboratory investigations of the washed fraction boiling to 180°C (Table 2) indicated that it can be used for the production of pure benzole (synthetic grade). In view of high wash losses (35.9%), the boiling range of the fraction most suitable for further treatment was determined as 79 to 135°C. Laboratory results were confirmed on an industrial batch unit (Table 4). The following products can be obtained: heads and losses - 19.7%, benzole 32.2%, toluole 12.2%, xylole 1.6%, solvent naphtha 13.8%, residues 16.2%, washing losses 4.3%. About 65% of benzole can be obtained of a synthetic grade. Residues contained about 63% of unsaturated suitable for the production of resins. However, the residue could not be processed together with benzole residues on the Works' coumarone resin plant. Their further processing is being investigated. Industrial processing of the pyrolysis tar was started on the Works according to the scheme shown in Fig.1. It consists of batch distillation with the collection of four fractions: forerunnings up to 70°C, BTX fraction (live steam) 79 to 90°C; solvent naphtha (live

S/068/60/000/001/004/006
E071/E433

Utilization of the Pyrolysis Tar-Wash Product From Synthetic Alcohol Plants

steam) 90 to 100°C and still residues. The washed BTX fraction is distilled on a continuous plant with collection of pure benzole and BX residues. The latter are passed through a continuous toluene column with the collection of pure toluole and residues which are then processed in a batch unit with the collection of the TK fraction (returned to the toluene column), xylole, solvent naphtha and residues. It is concluded that at present the processing of the pyrolysis tar on existing coke oven plants would be advantageous. The design of a special central plant of a large capacity for the processing of all the available pyrolysis residues is recommended. There are 2 figures and 4 tables.

ASSOCIATIONS: Yenakiyevskiykokosokhimicheskiy zavod (Yenakiyevo Coking Works) Glazunov, A.A., Glezer, I.G., Ionina, M.A. and Edel'man, Sh.I.;
Stalinskiy sovnarkhoz (Stalino Sovnarkhoz)
Zemblevskiy, K.K.

Card 3/3

GLAZUNOV, A.A.; GLEZER, I.G.; EDEL'MAN, Sh.I.; IONINA, M.A.; ZEMBLEVSKIY, K.K.

Method for the complete processing of coal tar obtained by pyrolysis. Koks i khim. no.8:39-42 '62. (MIRA 17:2)

1. Yenakiyevskiy koksokhimicheskiy zavod (for Glazunov, Glezer, Edel'man, Ionina). 2. Donetskiy sovet narodnogo khozyaystva (for Zemblevskiy).